

Dr Richard Greenwood BSc, PhD, FRSC

Engineering Doctorate Programme Manager

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About

Dr Richard Greenwood is the Programme Manager for the Engineering Doctorate in Formulation Engineering and also Industrial Tutor.

Qualifications

- Fellow Royal Society of Chemistry
- PhD Chemical Engineering, Imperial College
- BSc Chemistry University of Bristol

Biography

Richard Greenwood graduated with a BSc in Chemistry from Bristol University and then went on to Imperial College, London to study for a PhD in Chemical Engineering. He then spent some time in Sweden and Italy as a visiting scientist as part of an EU project. On his return to the UK he worked at the Chemistry Department at Keele University before moving to the Chemical Engineering School at the University of Birmingham in 1999. He is the current chair of the IChemE Particle Technology Subject Group and secretary of the RSC Formulated Product Engineering Subject Group.

Teaching

- Colloids and Rheology
- Measurement Techniques
- Coniston Team building course

Postgraduate supervision

Supervision of PhD, MRes and EngD projects in Formulation Engineering.

Research

Formulation and Formulation Engineering.

Other activities

- Chair IChemE Particle Technology Subject Group
- Secretary of the RSC Formulated Product Engineering Subject Group

Publications

1. The effect of particle size on the layer thickness of a stabilising polymer adsorbed onto two different classes of polymer latex as determined from rheological experiments. R. Greenwood, P.F. Luckham and T. Gregory, *Colloids and Surfaces*, 98, 117, 1995.
2. Rheological properties of bimodal polymer latices. R. Greenwood, P.F. Luckham and T. Gregory, *Journal of Colloid and Interface Science*, 191, 11 – 21 (1997)
3. Viscosity reduction in concentrated dispersions of bimodal mixtures and the prediction of the resulting viscosities. R. Greenwood, P.F. Luckham and T. Gregory, *Colloids and Surfaces*, 144 (1998) 139 -147.
4. Acoustophoretic and rheological characterisation of a ceria stabilised Zirconia powder. L. Bergstrom and R. Greenwood, *Journal of the European Ceramic Society*, 17 (2) 537 (1997.)
5. Preparation of concentrated aqueous alumina suspensions for tape casting. R. Greenwood, E. Roncari, C. Galassi, *Journal of the European Ceramic Society*, 17 (1997) 1393 -1401
6. An acoustophoretic investigation of aqueous suspensions of three different spinel powders. R. Greenwood and K. Kendall, *British Ceramic Transactions* 97 (4) 174 - 179, 1998.

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9. A.L. Costa, C. Galassi, R. Greenwood. Alpha Al₂O₃ - H₂O interface analysis by electroacoustic measurements *Journal of Colloid and Interface Science* 212 (1999) 350 - 356

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12. D. Coimbra, R. Greenwood and K. Kendall, Video controlled tensile testing of alumina fibres and rods manufactured by colloidal processing. *Journal of Material Science*. 35 (2000) 3347 - 3357

13. Effect of ionic strength on the adsorption of cationic polyelectrolytes onto alumina studied using electroacoustic measurements. R.Greenwood and K.Kendall *Powder Technology* 113 (2000) 148 -157

14. The use of poly (N isopropylacryamide) microgels as a multi functional processing aid for aqueous alumina suspensions. R. Greenwood, K.Kendall, S. Ritchie and M.J.Snowden, *J.European Ceramic Society*. 20,(2000) 1707 - 1716

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16. Particle separation from gases using cross-flow filtration. V. Sibanda, R.W.Greenwood and J.P.K.Seville, *Powder Tech.* 118 (2001) 193 - 202

17. A new method for determining the optimum dispersant concentration in aqueous grinding. R.Greenwood, S.Kingman, N.Rowson and G.Brown *Powder Tech.* 123 (2002) 199 - 207

18. Review of the measurement of zeta potentials in concentrated aqueous suspensions using electroacoustics. R.Greenwood, *Advances in Colloid and Interface Science*, 106 (2003) 55 -81

19. Microwave assisted comminution of ores at economically viable energy inputs. S.Bradshaw, T.V.Chow, T.Chan, S.W.Kingman, K.Jackson, N.Rowson, R.Greenwood, *Microwave and radio Frequency Applications The American Ceramic Society USA* (2003) 247-258

20. Recent developments in microwave assisted comminution S.W.Kingman, K.Jackson, A.Cumbane, S.M.Bradshaw, N.A.Rowson, R.Greenwood, *Int. J. Miner.Process* 74,1-4, 71-83, (2004)

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23. Roll compaction of a pharmaceutical excipient: Experimental validation of rolling theory for granular solids G.Bindhumadhavan, J.P.K.Seville, M.J.Adams, R.W.Greenwood, S.Fitzpatrick, *Chem. Eng Sci.* 60 (2005) 3891-3897

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Conference papers

1. The rheology of binary mixtures of polymer latices. R. Greenwood, P.F. Luckham, I.T. Kim and T. Gregory, 1994 *I. Chem. E. Research Event*. Vol 2 p 1190.

2. Characterization of alumina suspensions by electroacoustics. C. Galassi, E. Roncari, R. Greenwood and A. Piancastelli, 5 th EuroCeramic Conference, Key Engineering Materials, Vol. 132 - 136, p 329 - 332

3. Electroacoustic studies of aqueous Ce - ZrO₂ and Si₃N₄ suspensions. L. Bergstrom. E. Laarz and R. Greenwood. *Proc of Ultrasonic and Dielectric Characterization Techniques for Suspended Particles*. NIST. August 1997

4. The use of acoustophoresis to select dispersants for the stabilisation of ceramic suspensions. R. Greenwood and K. Kendall. Paper Number 5. *World Congress on Particle Technology*, Brighton 1998. CD Rom I. Chem. E.

5. Preparation of alumina pastes for extrusion. R. Greenwood, K. Kendall and P. Windibank. CIMTEC '98 Conference, Florence, June 1998.

6. Measurement of the strength of alumina fibres using a video extensometer D.Coimbra, K.Kendall and R. Greenwood, 6 th EuroCeramics Conference, Brighton, June 1999.
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20. Roll Granulation: Principles and Applications J.P.K.Seville, L.Perera, R.W.Greenwood and C.Bentham, Proceedings of the First World Feed Congress, Editors A.F.B.van der Poel, J.L.Vahl and R.P.Kwakkel, p 71 – 81, November 2001, Utrecht, The Netherlands
21. Positron Emission Particle Tracking – A novel technique to investigate the flow of granular solids. G.Bindhumadhavan, R.W. Greenwood, X. Fan, D.J. Parker and J.P.K. Seville, CHEMCON 2001 – Indian Chemical Engineering Congress and 54 th Annual Session of the Indian Institute of Chemical Engineers.
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29. D.Bird, R.W.Greenwood, K.Kendall Morphology of acrylic and silica based coatings applied inter-draw to PET films, Macro 2006 41 st International Symposium on Macromolecules Proceedings Rio de Janeiro, Brazil July 2006
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